



Railroad Accident Investigations Overview

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NTSB Mission

AVIATION



MARINE



HIGHWAY



RAILROAD



PIPELINE



NTSB Legislative Mandate

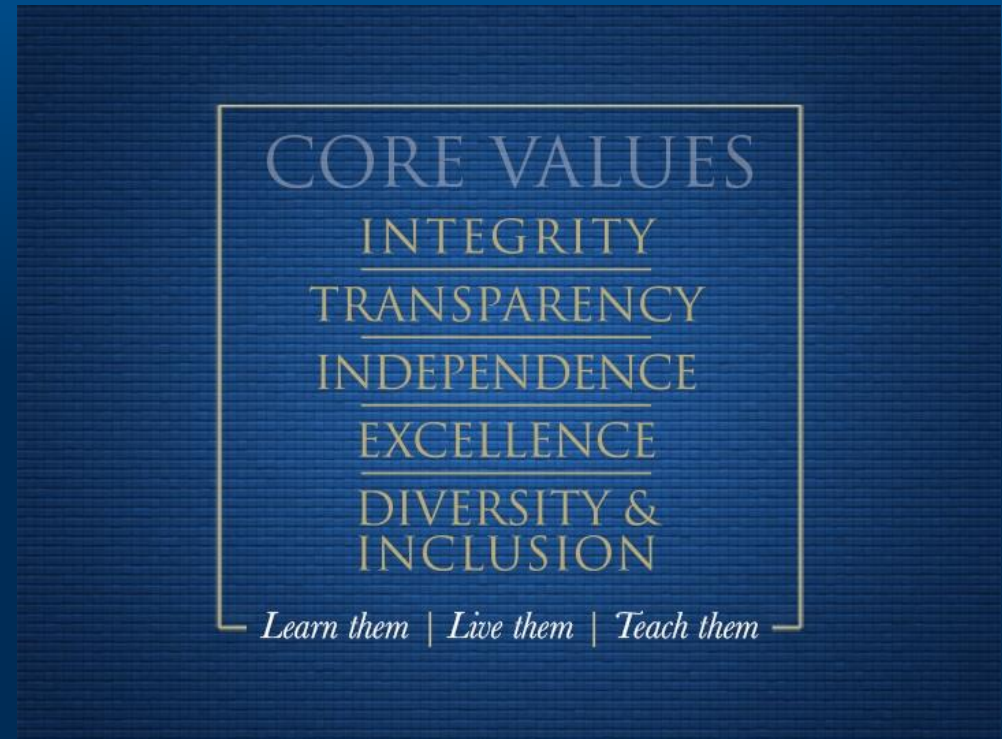
- *Maintaining* our congressionally mandated independence and objectivity
- *Conducting* objective, precise accident investigations and safety studies
- *Performing* fair and objective airman and mariner certification appeals
- *Advocating* and *Promoting* safety recommendations
- *Assisting* victims of transportation disasters and their families.

NTSB Core Values

Our core values are the guardrails that guide our decisions and actions.

They drive our workforce's conduct and shape the organization's vision and culture.

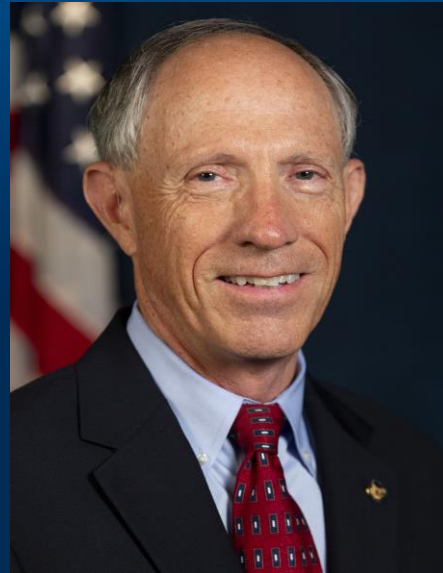
As binding principles, the core values are fundamental elements that allow us to serve the public in a cohesive and consistent manner.



NTSB Board Members



Honorable
Jennifer Homendy
Chair



Honorable
Bruce Landsberg



Honorable
Michael E. Graham



Honorable
Thomas B. Chapman

NTSB Board Members On-Scene

Provide the media with facts

Update victims and families about the facts and progress of the investigation

Brief government officials about the progress of the investigation



NTSB Focus on Safety

We focus solely on safety, to make recommendations that could help to prevent the next accident or crash.

- We do not determine blame or liability.
- We do not investigate intentional criminal acts.



NTSB Investigative Offices

Aviation Safety



Highway Safety



Marine Safety



Railroad, Pipeline, and Hazardous Material Safety



NTSB Office of Railroad, Pipeline and Hazardous Materials Investigations

- Investigates accidents involving railroads, pipelines, and the transportation of hazardous materials.
- Four Divisions
 - Railroad
 - Pipeline and Hazardous Materials
 - System Safety
 - Report Development
- Staff are in Washington, D.C., and various locations throughout the United States.

Railroad Division

- Division Chief
- Four Branch Chiefs
- 18 railroad investigators strategically located throughout the country



Other Supporting Staff

The level of support on-site varies with the complexity of the accident. The team may include:

- Media Relations Specialist
- Government Affairs – local and other elected officials
- Transportation Disaster Assistance (TDA) – family and other loved ones
- CIO – information systems
- General Counsel – legal matters

Rail Investigation Mandate

49 United States Code 1131

(a) General.—

(1) The National Transportation Safety Board shall investigate or have investigated (in detail the Board prescribes) and establish the facts, circumstances, and cause or probable cause of—

(C) a railroad accident in which there is a fatality or substantial property damage, or that involves a passenger train;

Priority of Board Investigations

- NTSB investigations have priority over other Federal Investigations
- Close cooperation with Federal agencies (such as FRA and EPA) who may conduct concurrent investigations
- Exception – NTSB has an MOU with the FBI for criminal events



Highway-Railroad Grade Crossing Accidents

- NTSB Office of Highway Safety usually leads the investigation
- Railroad investigators support the investigation



No Later than 2 Hours

- A passenger or employee fatality or
- Serious injury to two or more crewmembers or passengers requiring admission to a hospital
- The evacuation of a passenger train
- Damage to a tank car or container resulting in release of hazardous materials or
- Involving evacuation of the general public
- A fatality at a grade crossing

No Later than 4 Hours

- Damage (estimate) of **\$150,000 or more** for repairs, or the current replacement cost, to railroad and non-railroad property
- Damage of **\$25,000 or more** to a passenger train and railroad and non-railroad property

Initial Accident Notification

The NTSB (ROC) may be notified by --

- National Response Center
- Media
- Phone call from –
 - Local, state, or federal agency
 - Property where accident occurred
 - Fire Department
 - Union



To report an incident/accident, please call 1-844-373-9922 or 202-314-6290 to speak to a watch officer at the NTSB Response Operations Center (ROC) in Washington, DC (24/7).

Rail Duty Officer Follow-up

- Property/agency contacts
- Dispatch/control center
- Incident Command and other on-scene personnel (RR Manager)
- Local, state, and federal agencies
- Public media reports

Decision to Launch

- Significant impact on public safety
- Unique circumstances of accident
- Recurring issues
 - Concerns with non-regulated/insular properties
 - HHFT Unit Trains -- Crude Oil and Ethanol
 - Roadway Workers
 - Transportation Employee Fatalities
 - End of Track Collision



Major Accident Team

Team makeup depends on accident type -- collision, derailment, etc.

- Board Member
- Investigator-in-Charge
- Disciplines chosen based on initial information

IIC Initial Duties

- Contact with Property (railroad or transit agency)
 - Secure perishable evidence and maintain independent investigation
 - Handling data and video downloads
 - Handling interviews, wreck clearing, and response and recovery efforts
 - Identify Parties

The Party System

- NTSB regulations state in part:
- “Parties shall be **limited to** those **persons, government agencies, companies, and associations** whose employees, functions, activities, or products were **involved in the accident or incident** and who can **provide suitable qualified technical personnel** actively to assist in the investigation.”



The Party System

- Railroads
- Transit Agencies
- State Safety Oversight Agencies
- FRA
- FTA
- Labor Organizations
- Emergency Responders
- Equipment Manufacturers

The Party System

- Groups work under the direction of the Group Chairmen
- Groups remain intact for the duration of the investigation
- All parties do not participate in all groups



On-scene Investigation Process

- Organizational meeting
- Daily progress meetings
- Close-out meeting



On-Scene Activities

- Collect perishable evidence
- Photo document extraordinary components
- Take into custody evidence that requires further examination
- Conduct interviews of involved personnel and witnesses

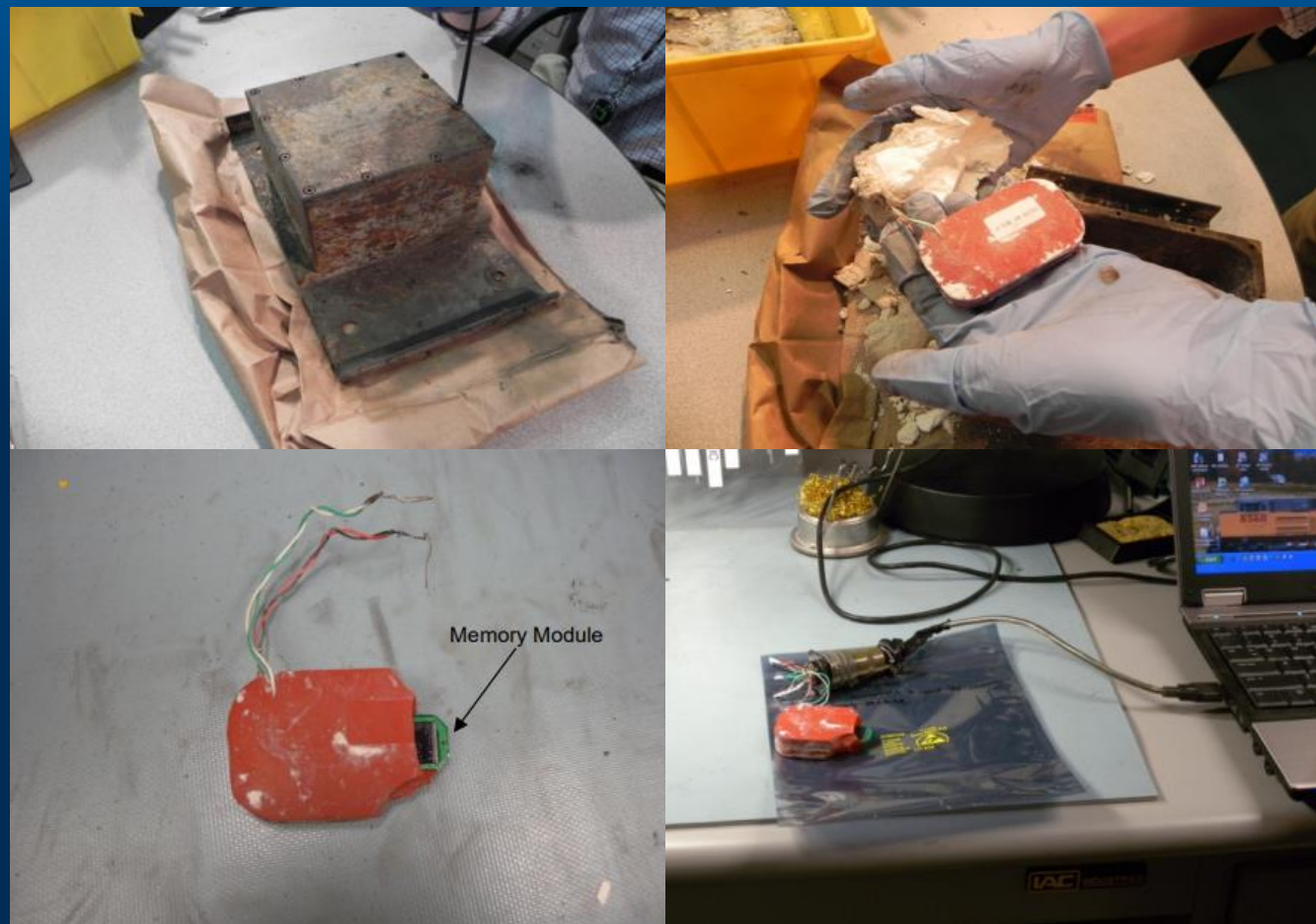
Evidence Examination



Audio/Video Recorders and Event Recorder Data



Event Recorder



Interviews

- The purpose of the interview is not to assign any fault, blame, or liability
- This interview will be recorded and subsequently transcribed
- A copy of the transcription will be mailed to the interviewee
- The transcription will be a part of the public docket
- The interviewee will have the opportunity to make corrections
- The interviewee will return the corrections to the NTSB Investigator

Return from On-Scene

- Factual reports completed by technical working groups
- A technical review is held of all the factual reports by the party representatives
- Following the technical review, the IIC will discuss party submissions with the party representatives

Investigative Hearings

- Are held in a public forum to gather additional facts about an accident
- The Board Members serve as the Board of Inquiry
- NTSB technical staff serve as the Technical Panel
- Parties to the hearing are people and organizations that can provide special or technical knowledge



Final Investigative Report

- A draft report is prepared by the investigation staff
- The report is generally complete within 12 to 24 months after the accident
- Some reports are presented at a public meeting
- Board Members vote to adopt the report as presented or with modifications

Additional NTSB Reports

- Special Investigations
 - Focus on a specific safety issue
 - May involve multiple accidents
 - Determine the facts, conditions and circumstances about the issue
- Safety Study
 - Evaluate the effectiveness of government and industry transportation safety programs
 - Examine policy issues, system safety, and management effectiveness

Other Actions

- Work with parties to evaluate and implement immediate safety improvements
- Safety accomplishments
- Standalone/Urgent safety recommendations
- Safety alerts to the industry

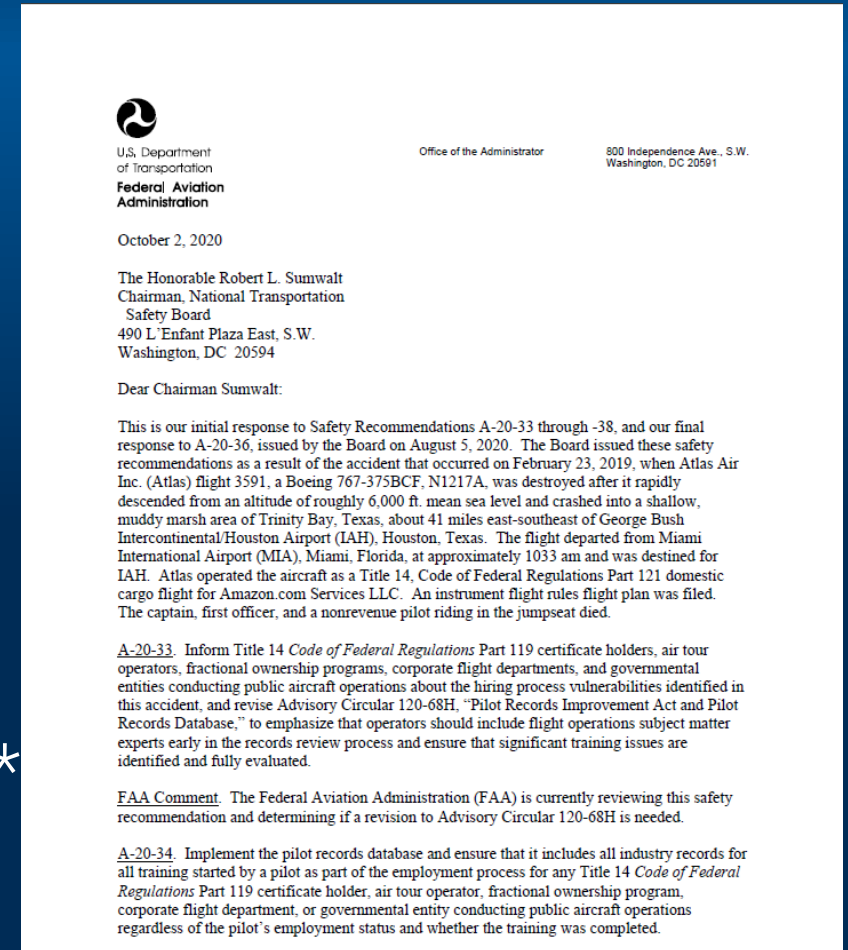
NTSB Safety Recommendations

- What is a safety recommendation?
 - Our most important product.
 - Our suggested action(s) to address specific safety issues that we've identified during an investigation.
 - Issued to the organization that the NTSB believes is in the best position to take the needed action.
 - Note, safety recommendations have no regulatory authority

Recommendation Implementation: Formal Response

- Initial response
 - Within 90 days of issuance
 - From head of organization
 - Proposed plan of action
- Annual updates
- Action should be completed in 3–5 years*
 - May keep open if action can be completed with additional time

* 1-year for urgent recommendations



FAA response to Safety Recommendations

NTSB Safety Recommendations

How SRC Can Help?

- Provide recommendation reports
- Provide correspondence history
- Set up informal meetings about recommendations
- Set up training about CAROL Query
- Discuss and socialize proposals
- Set up formal meetings



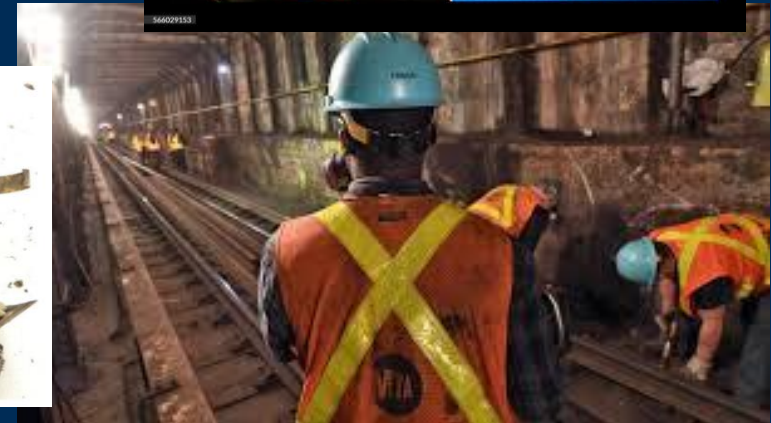
Recommendation Implementation: Advocacy

- Site Visits
- Meetings
- Roundtable Discussions
- Conferences
- Drop-in Articles
- Safety Alerts
- Webinars
- X's and Blogs
- Legislative Affairs/Support/Testimony



NTSB Safety Recommendations

- Roadway worker protections
- Risk assessments
- Mixed traffic collision avoidance systems
- Event data recorders
- Inward/Outward facing cameras
- Work schedules / hours of service / fatigue management / OSA
- Tunnels/Bridges: construction, maintenance, inspections, emergency egress, clearing obstructions from walkways
- Equipment inspections
- Rail car crashworthiness
- Training
- TBTC



Supporting a Recommendation











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Contact with NTSB

Twitter 	Facebook 	Instagram 	YouTube 	LinkedIn 	Flickr 
Podcast  <u>Behind the Scenes @NTSB</u>			Blog  <u>Safety Compass</u>		